A STUDY ON IMPACT OF BUSINESS MODEL INNOVATION ON DIGITAL START UP PERFORMANCE OF PUNE BASED IT COMPANIES."

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ABSTRACT:

Business model innovation is critical to firm survival and success. Digital revolution has reshaped value-creation methods in recent years, spawning various novel business models. However, we still have limited understanding of how a start-up's business model innovation efforts translate into superior performance in the digital economy.

Drawing on insights from the demand-side perspective, this study disassembles the Business model innovation architecture into three elements—value proposition, value creation, and value capture innovation—and investigates how business model innovation contributes to digital start-up performance.

This study contributes to business model research by examining the impact mechanism of business model innovation on firm performance and providing new insights into the demand-side perspective of business model innovation.

KEYWORDS:

1. Business model innovation
2. Value proposition
3. Value creation
4. Value capture
5. Demand-side perspective
6. Digital start-up

Introduction

New digital technologies challenge existing business models (Amit & Han, 2017; Nambisan, 2017; Rindfleisch, O'Hern, & Sachdev, 2017; Autio, Nambisan, Thomas, & Wright, 2018; Teece, 2018), and businesses are under pressure to transform their business models to remain relevant in the emerging digital economy (Yoo, Henfridsson, & Lyytinen, 2010; Rindfleisch et al., 2017; Soluk, Kammerlander, & Darwin, 2021). The concept of business model, which emerged during the Internet revolution, has attracted scholars' attention and stimulated numerous studies in fields such as strategy, innovation, and entrepreneurship (e.g., Amit & Zott, 2001, 2012; Teece, 2010; Foss & Saebi, 2017). Business model innovation in start-ups can help entrepreneurs seize fleeting business opportunities and translate business ideas into entrepreneurial practices (Ireland, Hitt, & Sirmon, 2003; George & Bock, 2011). This is certainly relevant for digital start-ups (Soluk et al., 2021). On the one hand, the proliferation of new digital technologies such as cloud computing, mobile computing, and internet of things has created new means of value creation (Kohli & Melville, 2019). On the other hand, digital innovation has spawned a host of new business models (Karimi & Walter, 2016; Amit & Han, 2017; Nambisan, 2017; Sorescu, 2017). Thus, it is important to understand how start-ups convert business model innovation into superior firm performance in the digital economy.

Existing literature recognizes the performance implications of business model innovation (Foss & Saebi, 2017). Among the various definitions of the business model, the value-structure view is a popular one, which treats business model as an architecture that explains a firm's value creation logic (Teece, 2010; Foss & Saebi, 2017). Therefore, business model innovation is regarded as changes to the value architecture of an organization (Bock, Opsahl, George, & Gann, 2012; Baden-Fuller & Haefliger, 2013). However, previous research has tended to treat business model as a kind of holistic architecture, focusing on its overall impact on firm performance. One stream of research considers business model innovation as a separate but integrated construct.

Another stream divides business model innovation into different types and then links them to firm performance (Zott & Amit, 2007, 2008; Wei, Yang, Sun, & Gu, 2014; Guo, Tang, Su, & Katz, 2017). Business model innovation is a multi-dimensional construct composed of three central elements: value proposition, value creation, and value capture innovation (Demil & Lecocq, 2010; Teece, 2010; Zott & Amit, 2010; Baden-Fuller & Haefliger, 2013; Sj€odin, Parida, Jovanovic, & Visnjic, 2020). Therefore, this study primarily aims to investigate the mechanism by which the three elements of business model innovation contribute to firm performance.

Given that the elements of business model innovation are combined into various configurations, this impact mechanism may include multiple paths. For example, in manufacturing industries, business model innovation could be driven by value creation innovation, focusing on key resources and activities. Consumer demand is increasingly valued in business model design in the digital age, as digital technologies significantly reduce the distance between enterprises and their customers (Priem, Wenzel, & Koch, 2018). Meanwhile, a growing number of scholars are conducting business model research by adopting the demand-side perspective, which emphasizes consumers as the key source of firm value creation (Rietveld, 2018; Guo, Wang, Su, & Wang, 2020; Sohl, Vroom, & McCann, 2020; Aversa, Haefliger, Hueller, & Reza, 2021; Denoo, Yli-Renko, & Clarysse, 2021). Therefore, in the digital business era, value proposition innovation emphasizing the role of consumers has become the key element of business model innovation. Based on the demand-side perspective, this study opens the "black box" of business model innovation and examines its relationship with digital start-up performance by addressing the following two questions: (1) How does value proposition innovation impact digital start-up performance? (2) How do value proposition, value creation, and value capture innovation jointly contribute to digital start-up performance?

Problem Statement

Work on business models serves as a springboard to investigate how firms create and capture value; business model innovation research investigates how firms implement new business models that affect the firm and its customers, and also competitors and the ecosystem of firms. Despite recent work there are many unanswered questions. We propose a research agenda to inspire further research on business model innovation. The discussion is organised around the themes of: (1) Definition and characterisation of business model innovation; (2) Managing business model innovation (in established firms); (3) Profiting from business model innovation; (4) Business model innovation and changes in the eco-system and (7) The role of capabilities for business model innovation.

Objective of Study

1. To study the value creation innovation of IT Companies.
2. To study the value capture innovation of IT Companies.

3. To study the value Proposition of IT Companies.
4. To study the impact of business model innovation on digital start-up companies performance.

Literature Review

Business model innovation – When competition threatened Hilti's profitability based on sales of power tools the firm implemented a new business model based on a fleet management offering. Adoption of the business model innovation restored Hilti's competitive position and increased its profitability. When Nestlé began selling its Nespresso coffee machines at low margins but with high margins on the capsules, the result was dramatically higher growth and profit margins for the Nespresso business. When IKEA moved from mail order to selling low-cost, disassembled household goods at standardised outlets, this transformed the industry and customers' understanding of what furniture purchases entailed. These examples demonstrate the importance of business model innovation.

Business model innovation and firm performance As mentioned earlier, business model comprises three fundamental elements—value proposition, value creation, and value capture (Clauss, 2017; Clauss, Abebe, Tangpong, & Hock, 2021). Accordingly, business model innovation involves the discovery and adoption of novel techniques of value proposition, value creation, and value capture (Teece, 2010; Amit & Zott, 2012; Bock et al., 2012; Clauss et al., 2021; Hiteva & Foxon, 2021).

Value proposition innovation refers to a company's portfolio of new products and services for consumers, as well as how it develops new consumers or market segments and new consumer relationships (Morris, Schindehutte, & Allen, 2005; Chesbrough, 2007; Johnson, Christensen, & Kagermann, 2008; Zott & Amit, 2010; Baden- Fuller and Haefliger, 2013; Chandler, Broberg, & Allison, 2014). Value creation innovation refers to the means and methods by which a company creates new values and increases the total value in the value network using its resources as well as intra- and inter-organizational process capabilities (Teece, 2010; Achtenhagen, Melin, & Naldi, 2013; Amit & Han, 2017; Massa, Tucci, & Afuah, 2017). Value capture innovation is defined as how a company innovatively builds its revenue model and/or cost structure to better distribute and capture value in the value network (Johnson et al., 2008; Teece, 2010; Baden-Fuller & Haefliger, 2013; Clauss et al., 2021).

Although the overall impact of business model innovation on firm performance has been well recognized, we still have limited knowledge on the underlying mechanism by which the three elements of business model innovation jointly lead to an improvement in firm performance.

Demand-side perspective of business model

According to scholars, the issue of how the value of resources is created is largely neglected in the supply-side strategy research (Priem & Butler, 2001; Nickerson, Silverman, & Zenger, 2007; Hamel, 2012). They suggest that the value of resources lies in the ability to solve consumer problems, enhance their willingness-to-pay, and turn them into repeat consumers (Priem, 2007; Priem, Li, & Carr, 2012). Therefore, it is equally important to address the demand-side because consumers1 are the value creators for a business (Adner & Zemsky, 2006; Priem, 2007; Bhide, 2009; Priem et al., 2012; Yli- Renko, Denoo, & Janakiraman, 2020). Moreover, the demand-side perspective is being increasingly recognized in fields such as strategic management (Schmidt, Makadok, & Keil, 2016; Manral & Harrigan, 2018; Wang, Aggarwal, & Wu, 2020) and entrepreneurship (Bhide, 2008; Priem et al., 2018; Rietveld, 2018). The demand-side perspective is consumer-centered and considers that consumers are heterogeneous and have dynamic preferences (Priem, Butler, & Li, 2013). It argues that value creation is determined by consumers' willingness-to-pay (Priem, 2001; Priem et al., 2013) rather than the potential cost-related benefits described in supply side studies. The power of the demand-side perspective is magnified in the digital economy. On the one hand, consumer demands become even heterogeneous and uncertain in the digital environment (Srinivasan & Venkatraman, 2017; Rietveld & Eggers, 2018). On the other hand, as products are co-created, the development of new digital technologies shifts power away from marketers and toward consumers (Autio et al., 2018; Bhide, 2009). Therefore, Priem et al. (2013) suggest that, in the new world of the "consumer internet," we must pay equal attention to the demand side and the supply side. Recently, a few studies have attempted to develop a demand-side perspective of business model (Priem et al., 2018) by examining issues such as the freemium business model, business model design, and business model diversification (Rietveld, 2018; Guo et al., 2020; Sohl et al., 2020; Aversa et al., 2021; Denoo et al., 2021). Priem et al. (2018, p. 22) argue that, "value creation for consumers, as the condition sine qua non for value capture, is at the heart of demand-side strategy research and is a core element of almost any business model." We agree with this perspective and believe that the demand-side perspective is more useful in business model research.

On the one hand, it may contribute to business model research by providing a more sophisticated understanding of value proposition development (Priem et al., 2018) because value proposition articulates consumers' central position (Chesbrough, 2007; Johnson et al., 2008; Baden-Fuller & Haefliger, 2013). On the other hand, value creation and value capture define how an organization mobilizes and configures resources and formulates appropriate revenue models to better meet consumer demands (Teece, 2010; Achtenhagen et al., 2013; Baden-Fuller & Haefliger, 2013; Amit & Han, 2017; Massa et al., 2017).

Hypotheses

Drawing insights from the demand-side perspective, we propose mediation model of the relationship between business model innovation and digital start-up performance in the context of India's digital economy. First, as consumers' willingness-to-pay is at the front end of the value chain or value network, we posit that the business model innovation is more likely to be initiated by value proposition innovation. Second, we suggest that value proposition innovation impacts digital start-up performance in two ways—value creation innovation and value capture innovation. In other words, value proposition innovation initiates the mechanism, while value creation and value capture innovation are actions that serve as conduits between value proposition innovation and digital start-up performance.

Value proposition innovation is reckoned as the central component of business model innovation (Morris et al., 2005; Johnson et al., 2008; Zott & Amit, 2010). It provides new offerings for consumers and explains why consumers would choose the products or services of a start-up (Baden-Fuller & Haefliger, 2013). First, by introducing a new value proposition, a start-up offers new products or services to satisfy heterogeneous consumer needs (Priem et al., 2013). Satisfying consumer needs assists start-ups in attracting more consumers and increase the possibility of improving consumers' willingness-to-pay (Rietveld, 2018). Second, new start-up offerings signify differences in products or services from previous versions, which may enable the firm to provide complementary functions to consumers and realize the potential of demand synergy (Ye, Priem, & Alshwer, 2012; Schmidt et al., 2016). In other words, new products and services, by creating more complementary values for consumers, increase the total value delivered by an organization. Third, the digitization of products and services open a broad range of new ways for consumers to interact with businesses (Amit & Han, 2017; Sorescu, 2017). A start-up develops new relationships with its consumers through value

proposition innovation, which could help the organization to better understand consumer needs, leading to an increased consumer retention rate and superior revenue generation (Chesbrough, 2007; Sj€odin et al., 2020). Thus, we hypothesize the following:

H1. Value proposition innovation is positively related to digital startup performance.

In the digital age, the power of individual consumers has been elevated owing to the proliferation of product and service information available through digitally enabled platforms and social interactions (Amit & Han, 2017). Therefore, value proposition innovation has become the starting point of business model innovation (Teece, 2010, 2018; Baden-Fuller & Haefliger, 2013; Clauss et al., 2021). To meet consumer demands, start-ups must engage in innovative value-creation activities, such as introducing new technologies, building new capabilities, developing new processes, or building new partnerships, either independently or collaboratively. Internally, a start-up's new resources, capabilities, or processes, such as the adoption of digital technologies, enable it to better exploit entrepreneurial opportunities (Teece, Pisano, & Shuen, 1997; Achtenhagen et al., 2013). Externally, partnerships with consumers, partners, or even peers enable a firm to conduct value co-creation activities. In other words, value creation innovation enables a start-up to work together with its value co-creators to increase consumers' willingness-to-pay, thereby adding value to the value system (Zott & Amit, 2010). Therefore, we suggest that value creation innovation serves as an important conduit between value proposition innovation and digital start-up performance. Business digitization substantially reduces information asymmetry in the market, making it easier for firms to understand and satisfy consumer demands (Barua, Konana, Whinston, & Yin, 2004). Hence, the mediating role of value creation innovation becomes more prominent in the digital economy. Thus, we hypothesize the following:

H2. Value creation innovation mediates the relationship between value proposition innovation and digital start-up performance.

Value capture innovation serves as another mediator between value proposition innovation and digital start-up performance. From the demand-side perspective, value proposition innovation helps a start-up to better understand consumer needs and increases the expected benefits for a wide range of consumers (Amit & Han, 2017; Rietveld, 2018). Value proposition innovation is a prerequisite for revenue maximization as it increases the number of potential customers. However, without a novel value capture mechanism, firms "leave money on the table" by ceding value to consumers and forgoing revenues (Rietveld, 2018). Even with a novel value proposition, start-ups cannot generate profit without designing appropriate value capture mechanism. Thus, value capture innovation, in the form of a novel revenue model or cost model, enables a start-up to effectively convert consumers' willingness-to-pay into revenue (Johnson et al., 2008; Rietveld, 2018), allowing the firm to capture more value from the value system and gain a competitive advantage.

The freemium model, for example, is becoming more popular in the digital economy (Rietveld, 2018). Companies, such as Google and Facebook, are all supporters of this business model. Compared to the traditional premium model, the freemium model is different in terms of the revenue model and cost structure designs, further leading to performance differences. Using data from online PC games, Rietveld (2018) finds that freemium games are played less and generate less revenue than premium games. Hence, to better create and capture value, firms operating the freemium model must operate at lower costs by reshaping their cost models or transfer to a premium model by increasing the variety of paid items available in the game menus. Considering this, we hypothesize the following:

H3. Value capture innovation mediates the relationship between value proposition innovation and digital start-up performance.

References

Achtenhagen, L., Melin, L., & Naldi, L. (2013). Dynamics of business models-strategizing, critical capabilities and activities for sustained value creation. Long Range Planning, 46(6), 457–471.

Adner, R., & Zemsky, P. (2006). A demand-based perspective on sustainable competitive advantage. Strategic Management Journal, 27(3), 215–239.

Aiken, L. S., & West, S. G. (1991). Multiple regression: Testing and interpreting interactions.

CA: Sage, Newbury Park.

Amit, R., & Zott, C. (2001). Value creation in e-business. Strategic Management Journal, 22(6/7), 493–520.

Amit, R., & Zott, C. (2012). Creating value through business model innovation. Sloan Management Review, 53(3), 41–49.

Amit, R., & Han, X. (2017). Value creation through novel resource configurations in a digitally enabled world. Strategic Entrepreneurship Journal, 11(3), 228–242.

Autio, E., Nambisan, S., Thomas, L., & Wright, M. (2018). Digital affordances, spatial affordances, and the genesis of entrepreneurial ecosystems. Strategic Entrepreneurship Journal, 12(1), 72–95.

Aversa, P., Haefliger, S., Hueller, F., & Reza, D. G. (2021). Customer complementarity in the digital space: Exploring Amazon's business model diversification. Long Range Planning, 54(5), 419–426.

Baden-Fuller, C., & Haefliger, S. (2013). Business models and technological innovation. Long Range Planning, 46(6), 419–426.

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: conceptual, strategic and statistical considerations. Journal of Personality and Social Psychology, 51(6), 1173–1182.

Barua, A., Konana, P., Whinston, A., & Yin, F. (2004). An empirical investigation of netenabled business value. MIS Quarterly, 28(4), 585–620.

Baum, J. R., & Bird, B. J. (2010). The successful intelligence of high-growth entrepreneurs: Links to new venture growth. Organization Science, 21(2), 397–412.

Bock, A. J., Opsahl, T., George, G., & Gann, D. M. (2012). The effects of culture and structure on strategic flexibility during business model innovation. Journal of Management Studies, 49(2), 279–305.

Brinckmann, J., Salomo, S., & Gemuenden, H. G. (2011). Financial management competence of founding teams and growth of new technology-based firms. Entrepreneurship Theory and Practice, 35(2), 217–243.

Chandler, G. N., McKelvie, A., & Davidsson, P. (2009). Asset specificity and behavioral uncertainty as moderators of the sales growth: employment growth relationship in emerging ventures. Journal of Business Venturing, 24(4), 373–387.

Chandler, G. N., Broberg, J. C., & Allison, T. H. (2014). Customer value propositions in declining industries: differences between industry representative and highgrowth firms. Strategic Entrepreneurship Journal, 8(3), 234–253.

Chesbrough, H. (2007). Open business model: how to thrive in the new innovation

landscape. Journal of Product Innovation Management, 17(4), 406–408.

Child, J. (1972). Organizational structure, environment and performance: the role of strategic choice. Sociology, 6(1), 1–22.

Clauss, T. (2017). Measuring business model innovation: conceptualization, scale development, and proof of performance. R&D Management, 47(3), 385–404.

Clauss, T., Abebe, M., Tangpong, C., & Hock, M. (2021). Strategic agility, business model innovation, and firm performance: an empirical investigation. IEEE Transactions on Engineering Management, 68(3), 763–784.

Cucculelli, M., & Bettinelli, C. (2015). Business models, intangibles and firm performance:

evidence on corporate entrepreneurship from Italian manufacturing SMEs.

Small Business Economics, 45(2), 329–350.

Demil, B., & Lecocq, X. (2010). Business model evolution: in search of dynamic consistency.

Long Range Planning, 43(2/3), 227–246.

Denoo, L., Yli-Renko, H., & Clarysse, B. (2021). The impact of customer ties and industry segment maturity on business model adaptation in an emerging industry. Strategic Entrepreneurship Journal, 15(3) 484-484.

Foss, N., & Saebi, T. (2017). Fifteen years of research on business model innovation: how far have we come, and where should we go? Journal of Management, 43(1), 200–227.

Futterer, F., Schmidt, J., & Heidenreich, S. (2018). Effectuation or causation as the key to

corporate venture success? Investigating effects of entrepreneurial behaviors on

business model innovation and venture performance. Long Range Planning, 51(1), 64–81.

George, G., & Bock, A. J. (2011). The business model in practice and its implications for entrepreneurship research. Entrepreneurship Theory and Practice, 35(1), 83–111.

Grimaldi, R., & Grandi, A. (2005). Business incubators and new venture creation: An assessment of incubating models. Technovation, 25(2), 111–121.

Guo, H., Tang, J., Su, Z., & Katz, J. A. (2017). Opportunity recognition and SME performance: the mediating effect of business model innovation. R&D Management, 47 (3), 431–442.

Guo, H., Wang, C., Su, Z., & Wang, D. (2020). Technology push or market pull? Strategic orientation in business model design and digital startup performance. Journal of Product Innovation Management, 37(4), 352–372.

Hamel, G. (2012). What matters now: How to win in a world of relentless change, ferocious competition, and unstoppable innovation. San Francisco: Jossey−Bass.

Hiteva, R., & Foxon, T. J. (2021). Beware the value gap: creating value for users and for the system through innovation in digital energy services business models. Technological Forecasting and Social Change, 166,(81) 120525.

Ireland, R. D, Hitt, M. A, & Sirmon, D. G. (2003). A model of strategic entrepreneurship: the construct and its dimensions. Journal of Management, 29(6), 963–989.

Jaworski, B. J., & Kohli, A. K. (1993). Market orientation: antecedents and consequences. Journal of Marketing, 57(3), 53–71.

Johnson, M. W., Christensen, C. M., & Kagermann, H. (2008). Reinventing your business model. Harvard Business Review, 86(12), 57–68.

Kakabadse, N., Karatas-Ozkan, M., Theodorakopoulos, N., Mcgowan, C., & Nicolopoulou, K. (2020). Business incubator managers' perceptions of their role and performance success: role demands, constraints, and choices. European Management Review, 17(2), 485–498.

Karimi, J., & Walter, Z. (2016). Corporate entrepreneurship, disruptive business model innovation adoption, and its performance: the case of the newspaper industry. Long Range Planning, 49(3), 342–360.

Kim, S. K., & Min, S. (2015). Business model innovation performance: when does adding a new business model benefit an incumbent? Strategic Entrepreneurship Journal, 9 (1), 34–57.

Kohli, R., & Melville, N. P. (2019). Digital innovation: a review and synthesis. Information Systems Journal, 29(1), 200–223.

Manral, L., & Harrigan, K. R. (2018). The logic of demand-side diversification: evidence from the US telecommunications sector, 1990-1996. Journal of Business Research, 85(1), 127–141.

Marlow, S., & McAdam, M. (2012). Analyzing the influence of gender upon high-technology venturing within the context of business incubation. Entrepreneurship Theory and Practice, 36(4), 655–676.

Massa, L., Tucci, C. L., & Afuah, A. (2017). A critical assessment of business model

research. Academy of Management Annals, 11(1), 73–104.

McCarthy, I. P., Lawrence, T. B., Wixted, B., & Gordon, B. R. (2010). A multidimensional conceptualization of environmental velocity. Academy of Management Review, 35 (4), 604–626.

Morris, M., Schindehutte, M., & Allen, J. (2005). The entrepreneur's business model: toward a unified perspective. Journal of Business Research, 58(6), 726–735.

Nambisan, S. (2017). Digital entrepreneurship: toward a digital technology perspective of entrepreneurship. Entrepreneurship Theory and Practice, 41(6), 1029–1055.

Neter, J., Wasserman, W., & Kutner, M. H. (1990). Applied linear statistical models. Boston,

MA: Irwin.

Nickerson, J. A., Silverman, B. S., & Zenger, T. R. (2007). The 'problem' of creating and capturing value. Strategic Organization, 5(3), 211–225.

Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method

biases in behavioral research: a critical review of the literature and recommended remedies. Journal of Applied Psychology, 88(5), 879–903.

Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. Behavior Research Methods, 40(3), 879–891.

Priem, R. L. (2007). A consumer perspective on value creation. Academy of Management Review, 32(1), 219–235.

Priem, R. L., & Butler, J. E. (2001). Is the resource-based "view" a useful perspective for

strategic management research? Academy of Management Review, 26(1), 22–40.

Priem, R. L., Butler, J. E., & Li, S. (2013). Toward reimagining strategy research: retrospection

and prospection on the 2011 AMR decade award article. Academy of Management

Review, 38(4), 471–489.

Grimaldi, R., & Grandi, A. (2005). Business incubators and new venture creation: An

assessment of incubating models. Technovation, 25(2), 111–121.

Guo, H., Tang, J., Su, Z., & Katz, J. A. (2017). Opportunity recognition and SME performance:

the mediating effect of business model innovation. R&D Management, 47

(3), 431–442.

Guo, H., Wang, C., Su, Z., & Wang, D. (2020). Technology push or market pull? Strategic

orientation in business model design and digital startup performance. Journal of

Product Innovation Management, 37(4), 352–372.

Hamel, G. (2012). What matters now: How to win in a world of relentless change, ferocious

competition, and unstoppable innovation. San Francisco: Jossey−Bass.

Hiteva, R., & Foxon, T. J. (2021). Beware the value gap: creating value for users and for

the system through innovation in digital energy services business models. Technological

Forecasting and Social Change, 166,(81) 120525.

Ireland, R. D, Hitt, M. A, & Sirmon, D. G. (2003). A model of strategic entrepreneurship:

the construct and its dimensions. Journal of Management, 29(6), 963–989.

Jaworski, B. J., & Kohli, A. K. (1993). Market orientation: antecedents and consequences.

Journal of Marketing, 57(3), 53–71.

Johnson, M. W., Christensen, C. M., & Kagermann, H. (2008). Reinventing your business model. Harvard Business Review, 86(12), 57–68.

Kakabadse, N., Karatas-Ozkan, M., Theodorakopoulos, N., Mcgowan, C., & Nicolopoulou, K. (2020). Business incubator managers' perceptions of their role and performance success: role demands, constraints, and choices. European Management Review, 17(2), 485–498.

Karimi, J., & Walter, Z. (2016). Corporate entrepreneurship, disruptive business model innovation adoption, and its performance: the case of the newspaper industry. Long Range Planning, 49(3), 342–360.

Kim, S. K., & Min, S. (2015). Business model innovation performance: when does adding a new business model benefit an incumbent? Strategic Entrepreneurship Journal, 9 (1), 34–57.

Kohli, R., & Melville, N. P. (2019). Digital innovation: a review and synthesis. Information Systems Journal, 29(1), 200–223.

Manral, L., & Harrigan, K. R. (2018). The logic of demand-side diversification: evidence from the US telecommunications sector, 1990-1996. Journal of Business Research, 85(1), 127–141.

Marlow, S., & McAdam, M. (2012). Analyzing the influence of gender upon high-technology venturing within the context of business incubation. Entrepreneurship Theory and Practice, 36(4), 655–676.

Massa, L., Tucci, C. L., & Afuah, A. (2017). A critical assessment of business model

research. Academy of Management Annals, 11(1), 73–104.

McCarthy, I. P., Lawrence, T. B., Wixted, B., & Gordon, B. R. (2010). A multidimensional conceptualization of environmental velocity. Academy of Management Review, 35 (4), 604–626.

Morris, M., Schindehutte, M., & Allen, J. (2005). The entrepreneur's business model: toward a unified perspective. Journal of Business Research, 58(6), 726–735.

Nambisan, S. (2017). Digital entrepreneurship: toward a digital technology perspective of entrepreneurship. Entrepreneurship Theory and Practice, 41(6), 1029–1055.

Neter, J., Wasserman, W., & Kutner, M. H. (1990). Applied linear statistical models. Boston,

MA: Irwin.

Nickerson, J. A., Silverman, B. S., & Zenger, T. R. (2007). The 'problem' of creating and capturing value. Strategic Organization, 5(3), 211–225.

Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method

biases in behavioral research: a critical review of the literature and recommended remedies. Journal of Applied Psychology, 88(5), 879–903.

Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. Behavior Research Methods, 40(3), 879–891.

Priem, R. L. (2007). A consumer perspective on value creation. Academy of Management Review, 32(1), 219–235.

Priem, R. L., & Butler, J. E. (2001). Is the resource-based "view" a useful perspective for

strategic management research? Academy of Management Review, 26(1), 22–40.

Priem, R. L., Butler, J. E., & Li, S. (2013). Toward reimagining strategy research: retrospection

and prospection on the 2011 AMR decade award article. Academy of Management

Review, 38(4), 471–489.